BRUHAT BANGALORE MAHANAGARA PALIKE

# QUALITY TEST REPORT

## PMC for the Package-4 civil works in Yelahanka Division

Name of work: Improvement to Roads and Drains and Other Developmental Works At 407,707,208 Sfs, Major Akshay Girish Kumar Road Yelahanka 4th And 5th Phase And Surrounding Areas In Ward No.01,03 And 04 Of Yelahanka Division Under Amruthnagarothana Grants (Package-04)

(Shree Sai Consultants)

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

Address for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**

No.:SSC/BBMP/PMC/ YNK-D / /2022-23 Date: 23.12.2022

To,
**Executive Engineer,**
Yelahanka Division,
Bruhat Bangalore Mahanagara Palike
Bangalore.

**Dear Sir,**

**Sub:** Improvement to Roads and Drains and Other Developmental Works At 407,707,208 Sfs, Major Akshay Girish Kumar Road Yelahanka 4th And 5th Phase And Surrounding Areas In Ward No.01,03 And 04 Of Yelahanka Division Under Amruthnagarothana Grants (Package-04)

In reference to the above subject, this is to bring to kind notice that we have scrutinized the **1st and Part Bill** submitted by **M/s Sri S. R Mohan Kumar** towards the above said work and arrived at an amount of **Rs.2,19,38,725.28 (Rupees Two Crore Nineteen Lakh Thirty Eight Thousand Seven Hundred Twenty Five and Paise Twenty Eight Only)** the work has been completed satisfactorily.

This is for your kind information.

Thank you and assuring you the best of our Services at all the times

AE AE YGL

For Sri Sai Consultants

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-10

# SHREE SAI CONSULTANTS
## SURVEYING, ENGINEERING PROJECT CONSULTANTS

Address for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**

TEST REPORT

| | |
|---|---|
| Clients | BRUHAT BENGALORE MAHANAGARA PALIKE |
| Project | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| Consultants | Shree Sai Consultants, Bangalore |
| Contractor | M/s Sri S. R Mohan Kumar |

### SPECIFIC GRAVITY AND WATER ABSORPTION
FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| Type of Material | M sand | Proposed Use | PCC( For drain) |
| Location/Source | 407 SFS 6th Cross Road | Date of Sampling | 06-09-2022 |
| Period of Soaking | 24 hours | Date of Testing | 07-09-2022 |

| Sl. No. | Test Property | | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | |
|---|---|---|---|---|---|---|
| A | Weight of sturated surface dry sample gm. | | 655 | 649 | 672 | |
| B | Weight of oven - dry sample gm. | | 646 | 640 | 663 | |
| C | Weight of Pycnometer Filled with water gm | | 1275 | 1275 | 1275 | |
| D | Weight of Pycnometer + sample + water gm | | 1687 | 1683 | 1697 | |
| E | Bulk specific gravity | $\frac{B}{(C+A-D)}$ | 2.658 | 2.656 | 2.652 | 2.655 |
| G | Absorption (%) | $\frac{(A-B)*100}{B}$ | 1.393 | 1.406 | 1.357 | 1.386 |

Note:
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory /Site.
3. Any Query regarding the report must be reported reported within 15days from the date of testing.
4. The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

AE

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬ.ಬ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-10೧

Authorised Signatory

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

ddress for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**

## TEST REPORT

| | |
|---|---|
| Clients | Bruhath Bangalore Mahanagara Palike |
| Project | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| Consultants | Shree Sai Consultants, Bangalore |
| Contractor | M/s Sri S. R Mohan Kumar |
| Total Weight in gm: | 3000 |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Type of Material | 40 mm down size | | | Proposed Use | PCC(For drain) |
| Sample Location | 407 SFS 6th Cross Road | | | Date of Sampling | 06-09-2022 |
| | | | | Date of Testing | 07-09-2022 |
| IS Sieve Size | Weight Retained in gm | Cum. Weight Retained in gm | Cumulative Weight Retained in % | Cumulative Weight Passing in % | Specific Limits as per IS 383-1970 (RA-2007) % of Passing For Graded Aggregate of Nominal Size |
| 80.00mm | 0 | 0 | 0.00 | 100.00 | 100 |
| 63.00mm | 0 | 0 | 0.00 | 100.00 | - |
| 40.00mm | 85 | 85 | 2.83 | 97.17 | 95-100 |
| 20.00mm | 1355 | 1440 | 48.00 | 52.00 | 30-70 |
| 10.00mm | 971 | 2411 | 80.37 | 19.63 | 10-35 |
| 4.75mm | 458 | 2869 | 95.63 | 4.37 | 0-5 |
| Pan | 131 | 3000 | 100.00 | 0.00 | |

**Remarks :** Satisfactory / Not Satisfactory

Note:
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory/Site.
3. Any Query regarding the report must be reported reported within 15days from the date of testing.
4.The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

Authorised Signatory

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

ddress for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**

## Test Report on Cement

| | |
|---|---|
| ect | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| at | Bruhat Bangalore Mahanagar Palike |
| sultant | Sri Sai Consultants, Bangalore |
| tractor | M/s Sri S. R Mohan Kumar |
| ple ID | Cement (ACC Cement) OPC 43 Grade |
| e of Sample ted | 07-09-2022 |
| ple Supplied | Agency |

| SLNo. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 98 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 476 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 6 mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 28.00% | 25 % to 35 |

ote:
The report shall not be reproduced, except in full, without the written approval of the laboratory.
The results indicated above are based on the tests carried out on the samples
ceived in the laboratory /Site.
Any Query regarding the report must be reported reported within 15days from the date of testing.
The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

Authorised Signatory

AE

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಜಿ.ಬಿ.ಎ. ಬೆಂಗಳೂರು-106

# SHREE SAI CONSULTANTS
## SURVEYING, ENGINEERING PROJECT CONSULTANTS

ddress for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**

### TEST RESULTS OF PHYSICAL PROPERTIES OF REINFORCEMENT STEEL

| | | |
|---|---|---|
| Name of Work | : | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| Client | : | Bruhat Bengaluru Mahanagara Palike |
| Contractor | : | M/s Sri S. R Mohan Kumar |
| Consultant | : | Shree Sai Consultants, Bangalore |
| Date of Testing | : | 08-09-2022 |
| Techinical Reference | : | IS 1786:2008, IS1608:2005, IS1599:1985(Reaffirmed2006) |
| Sample Identification | : | 8mm, 10mm,12mm TMT Fe500 Bars |

| Sl. No. | Nominal size dia in mm) | Mass per metre (kg/m) | TENSILE STRENGTH | | |
|---|---|---|---|---|---|
| | | | 0.20% proof stress/yield stress N/mm2 | Tensile strength N/mm2 ' | Elongation,percent on gauge length |
| 1 | 8 | 0.397 | 518 | 553 | 15 |
| 2 | 10 | 0.618 | 529 | 572 | 16 |
| 3 | 12 | 0.889 | 551 | 588 | 17 |

**Note:**

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples collected at site/ received in the laboratory.
3. Any Query regarding the report must be reported reported within 15 days from the date of testing.
4. The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

AE

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

dress for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangalocre-560 074
**PH: 9900161466**

## TEST REPORT

| | | |
|---|---|---|
| ients | Bruhat Bangalore Mahanagara Palike | |
| oject | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. | |
| onsultants | Shree Sai Consultants, Bangalore | |
| ontractor | M/s Sri S. R Mohan Kumar | |
| otal Weight: | 10000 | gms |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| ype of Material | 20 mm down size | Proposed Use | Concrete |
| ample Location | At Plant | Date of Sampling | 09-09-2022 |
| | | Date of Testing | 10-09-2022 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 40.00 mm | 0 | 0 | 0 | 100 | 100 |
| 20.00 mm | 381 | 381 | 3.81 | 96.19 | 95 - 100 |
| 10.00 mm | 4710 | 5091 | 50.91 | 49.09 | 25 - 55 |
| 4.75 mm | 4312 | 9403 | 94.03 | 5.97 | 0 - 10 |
| Pan | 597 | 10000 | | | |

**Remarks :** Satisfactory / Not Satisfactory

Note:
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory /Site.
3. Any Query regarding the report must be reported reported within 15days from the date of testing.
4. The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

Authorised Signatory

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-106

# SHREE SAI CONSULTANTS
## SURVEYING, ENGINEERING PROJECT CONSULTANTS


Address for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**


### TEST REPORT

| | |
|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike |
| Project | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| Consultants | Shree Sai Consultants, Bangalore |
| Contractor | M/s Sri S. R Mohan Kumar |

### SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Total Weight: | 3000 gms | Proposed Use | concrete |
| Type of Material | M sand | Date of Sampling | 10-09-2022 |
| Sample Location | At Plant | Date of Testing | 10-09-2022 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing (Zone-II) |
|---|---|---|---|---|---|
| 10.00 mm | 0 | 0 | 0 | 100.00 | 100 |
| 4.75 mm | 210 | 210 | 7.00 | 93.00 | 90 - 100 |
| 2.36 mm | 332 | 542 | 18.07 | 81.93 | 75 - 100 |
| 1.18 mm | 442 | 984 | 32.80 | 67.20 | 55 - 90 |
| 0.600 mm | 480 | 1464 | 48.80 | 51.20 | 35 -59 |
| 0.300 mm | 695 | 2159 | 71.97 | 28.03 | 8-30 |
| 0.150 mm | 633 | 2792 | 93.07 | 6.93 | 0 - 10 |
| Pan | 208 | 3000 | | | - |
| | | | | | |

**Remarks :** Satisfactory / Not Satisfactory

Note:
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory/Site.
3. Any Query regarding the report must be reported reported within 15days from the date of testing.
4.The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

AE

Authorised Signatory

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

dress for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**

## TEST REPORT

| | |
|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike |
| Project | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division |
| Consultants | Shree Sai Consultants, Bangalore |
| Contractor | M/s Sri S. R Mohan Kumar |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Total Weight: | 3000 gms | | |
| Type of Material | M sand | Proposed Use | PCC( For drain) |
| Sample Location | 2nd A Main Road | Date of Sampling | 12-09-2022 |
| | | Date of Testing | 12-09-2022 |

| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing (Zone-II) |
|---|---|---|---|---|---|
| 10.00 mm | 0 | 0 | 0 | 100.00 | 100 |
| 4.75 mm | 215 | 215 | 7.17 | 92.83 | 90 - 100 |
| 2.36 mm | 318 | 533 | 17.77 | 82.23 | 75 - 100 |
| 1.18 mm | 411 | 944 | 31.47 | 68.53 | 55 - 90 |
| 0.600 mm | 490 | 1434 | 47.80 | 52.20 | 35 -59 |
| 0.300 mm | 750 | 2184 | 72.80 | 27.20 | 8-30 |
| 0.150 mm | 622 | 2806 | 93.53 | 6.47 | 0 - 10 |
| Pan | 194 | 3000 | | | - |
| | | | | | |

Remarks : Satisfactory / Not Satisfactory

Note:
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory/Site.
3. Any Query regarding the report must be reported reported within 15days from the date of testing.
4. The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.
4. The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

AE

Authorised Signatory

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ
ಜಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-10೯

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

dress for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| oject | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| ent | Bruhat Bangalore Mahanagar Palike |
| nsultant | Shree Sai Consultants, Bangalore |
| ntractor | M/s Sri S. R Mohan Kumar |
| rade of ncrete: | M20 |
| ze of cube: | 150x150x150 mm |
| eference IS ode: | IS:516-1959 |
| ample cation | 3rd Main road (Park Road) (For Culvert Raft) |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 14-09-2022 | 21-09-2022 | 7 days | 8.166 | 22500 | 311 | 13.82 | 13.81 |
| 2 | 14-09-2022 | 21-09-2022 | 7 days | 8.175 | 22500 | 313 | 13.91 | |
| 3 | 14-09-2022 | 21-09-2022 | 7 days | 8.184 | 22500 | 308 | 13.69 | |

Note:
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory/Site.
3. Any Query regarding the report must be reported reported within 15days from the date of testing.
4. The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

Authorised Signatory

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ
ಬ.ಬ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-೧೦೯

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

dress for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| ct | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| t | Bruhat Bangalore Mahanagar Palike |
| ultant | Shree Sai Consultants, Bangalore |
| ractor | M/s Sri S. R Mohan Kumar |
| e of rete: | M20 |
| of cube: | 150x150x150 mm |
| rence IS : | IS:516-1959 |
| ple tion | Ch-512 LHS,407 SFS 6th Cross Road ( For Side Walls) |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 15-09-2022 | 13-10-2022 | 28days | 8.177 | 22500 | 492 | 21.87 | 21.56 |
| 2 | 15-09-2022 | 13-10-2022 | 28days | 8.165 | 22500 | 488 | 21.69 | |
| 3 | 15-09-2022 | 13-10-2022 | 28days | 8.156 | 22500 | 475 | 21.11 | |

:
he report shall not be reproduced, except in full, without the written approval of the laboratory.
he results indicated above are based on the tests carried out on the samples
ived in the laboratory/Site.
ny Query regarding the report must be reported reported within 15days from the date of testing.
e material used in the site satisfied the standard of MORTH's 5th revision and hence can be used
e work.

AE

Authorised Signatory

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS


lress for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**


## Test Report on Cement

| | |
|---|---|
| ct | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| t | Bruhat Bangalore Mahanagar Palike |
| ultant | Shree Sai Consultants, Bangalore |
| ractor | M/s Sri S. R Mohan Kumar |
| ple ID | Cement (ACC Cement) OPC 43 Grade |
| of Sample ed | 17-09-2022 |
| ple Supplied | Agency |

| SLNo. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 103 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 461 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 6 mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 29.00% | 25 % to 35 |

ote:
The report shall not be reproduced, except in full, without the written approval of the laboratory.
The results indicated above are based on the tests carried out on the samples
ceived in the laboratory /Site.
Any Query regarding the report must be reported reported within 15days from the date of testing.
The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used
n the work.

Authorised Signatory

AE

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ
ಜಿ.ಬಿ.ಎ, ಬೆಂಗಳೂರು-106

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

ss for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| : | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| | Bruhat Bangalore Mahanagar Palike |
| tant | Shree Sai Consultants, Bangalore |
| ıctor | M/s Sri S. R Mohan Kumar |
| of te: | M20 |
| f cube: | 150x150x150 mm |
| ence IS | IS:516-1959 |
| le ion | Ch-26 RHS, 407 SFS 4th Cross Road( For Raft) |

| .No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 17-09-2022 | 15-10-2022 | 28days | 8.201 | 22500 | 492 | 21.87 | 21.69 |
| 2 | 17-09-2022 | 15-10-2022 | 28days | 8.195 | 22500 | 487 | 21.64 | |
| 3 | 17-09-2022 | 15-10-2022 | 28days | 8.174 | 22500 | 485 | 21.56 | |

e report shall not be reproduced, except in full, without the written approval of the laboratory.
e results indicated above are based on the tests carried out on the samples
ed in the laboratory/Site.
y Query regarding the report must be reported reported within 15days from the date of testing.
material used in the site satisfied the standard of MORTH's 5th revision and hence can be used
work.

Authorised Signatory

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-೫೬

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

ess for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangalocre-560 074
**PH: 9900161466**

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No 03 of Yelahanka Sattelite Town Sub Division. |
| | Bruhat Bangalore Mahanagar Palike |
| ant | Shree Sai Consultants, Bangalore |
| ctor | M/s Sri S. R Mohan Kumar |
| of te: | M20 |
| cube: | 150x150x150 mm |
| nce IS | IS:516-1959 |
| | 3rd Main road (Park Road)(For Culvert Wall) |

| No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 17-09-2022 | 15-10-2022 | 28days | 8.169 | 22500 | 492 | 21.87 | 21.60 |
| 2 | 17-09-2022 | 15-10-2022 | 28days | 8.178 | 22500 | 487 | 21.64 | |
| 3 | 17-09-2022 | 15-10-2022 | 28days | 8.194 | 22500 | 479 | 21.29 | |

report shall not be reproduced, except in full, without the written approval of the laboratory.
results indicated above are based on the tests carried out on the samples
ed in the laboratory/Site.
y Query regarding the report must be reported reported within 15days from the date of testing.
material used in the site satisfied the standard of MORTH's 5th revision and hence can be used
work.

Authorised Signatory

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

s for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangalocre-560 074
**PH: 9900161466**

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| | Bruhat Bangalore Mahanagar Palike |
| ıt | Shree Sai Consultants, Bangalore |
| ır | M/s Sri S. R Mohan Kumar |
| | M20 |
| ıbe: | 150x150x150 mm |
| :e IS | IS:516-1959 |
| | Ch-95 RHS, 407 SFS 4th Cross Road (For Side walls) |

| o. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| | 20-09-2022 | 27-09-2022 | 7 days | 8.165 | 22500 | 313 | 13.91 | 13.85 |
| | 20-09-2022 | 27-09-2022 | 7 days | 8.175 | 22500 | 310 | 13.78 | |
| | 20-09-2022 | 27-09-2022 | 7 days | 8.152 | 22500 | 312 | 13.87 | |

eport shall not be reproduced, except in full, without the written approval of the laboratory.
esults indicated above are based on the tests carried out on the samples
d in the laboratory/Site.
Query regarding the report must be reported reported within 15days from the date of testing.
naterial used in the site satisfied the standard of MORTH's 5th revision and hence can be used
work.

AE

Authorised Signatory

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಜ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

ss for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No 03 of Yelahanka Sattelite Town Sub Division. |
| | Bruhat Bangalore Mahanagar Palike |
| ant | Shree Sai Consultants, Bangalore |
| tor | M/s Sri S. R Mohan Kumar |
| of te: | M20 |
| cube: | 150x150x150 mm |
| nce IS | IS:516-1959 |
| e on | Ch-63 RHS, 2nd A Main Road For Raft) |

| No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 21-09-2022 | 19-10-2022 | 28days | 8.192 | 22500 | 490 | 21.78 | 21.69 |
| 2 | 21-09-2022 | 19-10-2022 | 28days | 8.183 | 22500 | 485 | 21.56 | |
| 3 | 21-09-2022 | 19-10-2022 | 28days | 8.168 | 22500 | 489 | 21.73 | |

e report shall not be reproduced, except in full, without the written approval of the laboratory.
e results indicated above are based on the tests carried out on the samples
ved in the laboratory/Site.
y Query regarding the report must be reported reported within 15days from the date of testing.
e material used in the site satisfied the standard of MORTH's 5th revision and hence can be used
e work.

AE

Authorised Signatory

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

ess for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| | Improvements to Drains and Footpath at 407,707,208 SF, 5th Phase in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| | Bruhat Bangalore Mahanagar Palike |
| tant | Shree Sai Consultants, Bangalore |
| ctor | M/s Sri S. R Mohan Kumar |
| of te: | M20 |
| cube: | 150x150x150 mm |
| nce IS | IS:516-1959 |
| e on | Ch-134 RHS, 2nd A Main Road (For Side Walls) |

| .No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 23-09-2022 | 21-10-2022 | 28days | 8.166 | 22500 | 490 | 21.78 | 21.66 |
| 2 | 23-09-2022 | 21-10-2022 | 28days | 8.175 | 22500 | 487 | 21.64 | |
| 3 | 23-09-2022 | 21-10-2022 | 28days | 8.185 | 22500 | 485 | 21.56 | |

report shall not be reproduced, except in full, without the written approval of the laboratory.
results indicated above are based on the tests carried out on the samples
ed in the laboratory/Site.
y Query regarding the report must be reported reported within 15days from the date of testing.
material used in the site satisfied the standard of MORTH's 5th revision and hence can be used
work.

AE

Authorised Signatory

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ
ಜಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-100

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

ress for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangalocre-560 074
**PH: 9900161466**

## KERB STONE (CORE) TEST REPORT

| | | |
|---|---|---|
| of Work | : | Resurfacing of Roads at 4th Phase Yelahanka New Town and Surrounding Areas in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| | : | Bruhat Bengaluru Mahanagara Palike |
| actor | : | M/s Sri S. R Mohan Kumar |
| ltant | : | Sri Sai Consultants, Bangalore |
| Sample Tested | : | 3 |
| of Testing | : | 05-12-2022 |
| nical Reference | : | IS:516-1959 (Reaffirmed 1999), SP-24:1983. |
| e of Concrete | : | M20 |

| o. | Dia of Core D (mm) | Height of Core H (mm) | Core Wt (Kg) | Density of Core (kg / m$^3$) | H / D | Correction factor (Based on H/D) | Failure Load (kN) | Core Strength ( N/mm$^2$) | Correction Factor for the Dia. (Strength | Corrected Cylinder Compressive Strength (N/mm$^2$) | Equivalent Cube Compressive Strength |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 50.00 | 85.00 | 0.395 | 2366.73 | 1.70 | 0.960 | 39.47 | 20.10 | 21.71 | 20.84 | 26.05 |
| 2 | 50.00 | 85.00 | 0.397 | 2378.71 | 1.70 | 0.960 | 39.58 | 20.16 | 21.77 | 20.90 | 26.12 |
| 3 | 50.00 | 85.00 | 0.386 | 2312.80 | 1.70 | 0.960 | 39.75 | 20.24 | 21.86 | 20.99 | 26.24 |

e:
The report shall not be reproduced, except in full, without the written approval of the laboratory.
The results indicated above are based on the tests carried out on the samples received in the laboratory.
Any Query regarding the report must be reported reported within 90 days from the date of testing.
The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used
the work.

Consultant's Representative

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ.
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

ddress for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**

| | |
|---|---|
| **Project** | Resurfacing of Roads at 4th Phase Yelahanka New Town and Surrounding Areas in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| **Client** | Bruhat Bengaluru Mahanagara Palike |
| **Consultant** | Sri Sai Consultants, Bangalore |
| **Contractor** | M/s Sri S. R Mohan Kumar |

**AGGREGATE IMPACT VALUE (IS: 2386 Part - 4)**

| | | | |
|---|---|---|---|
| **Proposed Use** | DBM | **Date of Sampling** | **17-12-2022** |
| **Sample Location** | At plant | **Date of Testing** | **17-12-2022** |

| Sl. No. | Description | | Test No. 1 | Test No. 2 | Test No. 3 | Spec Limit (%) |
|---|---|---|---|---|---|---|
| 1 | Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm) | (Wa) | 385.00 | 371.00 | 369.00 | |
| 2 | Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm) | (Wb) | 292.00 | 281.00 | 284.00 | |
| 3 | Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm) | (Wc) | 93.00 | 90.00 | 85.00 | |
| 4 | Aggregate Impact Value (%) | (Wc/Wa)*100 | 24.16 | 24.26 | 23.04 | |
| 5 | Average Aggregate impact value | (%) | | 23.82 | | Max - 30 % |

**Remarks :** Satisfactory / Not Satisfactory

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory/Site.
3. Any Query regarding the report must be reported reported within 15days from the date of testing.
4. The material used in the site satisfied the standard of MORTH's 5th revision and hence in the work.

Consultant's Representative

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-೫೬

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

Address for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangalore-560 074
**PH: 9900161466**


## BITUMEN CONTENT AND GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM MIX

| | |
|---|---|
| **Name of Work** | Resurfacing of Roads at 4th Phase Yelahanka New Town and Surrounding Areas in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| **Client** | Bruhat Bengaluru Mahanagara Palike |
| **Consultant** | Sri Sai Consultants, Bangalore |
| **Contractor** | M/s Sri S. R Mohan Kumar |
| **Date of Testing** | 19-12-2022 |
| **Type of Mix** | DBM |
| **Sample I/D** | DBM-1 |

### DETERMINATION OF BITUMEN CONTENT

| Description | Trail 1 | Trail 2 |
|---|---|---|
| 1. Weight of Mixture before extraction, g | 922 | 949 |
| 2. Weight of Mixture after extraction, g | 882 | 908 |
| 3. Weight of Bitumen | 40 | 41 |
| 4. Weight of filter paper before extraction, g | 2.00 | 2.00 |
| 5. Weight of filter paper after extraction, g | 4.00 | 4.00 |
| 6. Weight of fines, g | 2.00 | 2.00 |
| 7. Weight of Bitumen & fines | 42.00 | 43.00 |
| 8. Bitumen content in % | 4.56 | 4.53 |
| 9. Average Bitumen content in % | 4.54 | |
| 10. Minimum Bitumen content in % | 4.50 | |

### GRADATION FOR DBM AFTER EXTRACTION
(As per MORT&H 500-10 Grading-2)

| | | | |
|---|---|---|---|
| **Sample Location:** | CQAL Layout | **Date of Sampling:** | 19-12-2022 |
| | | **Date of testing:** | 19-12-2022 |
| **Type of material & Purpose:** | DBM | **Oven Dry Wt.(gms):** | 882 |

| IS Sieve size in mm | Weight retained | Cummulative weight retained (gm) | Cummulative % of retained | Cummulative % of passing | Specification limits |
|---|---|---|---|---|---|
| 37.50 | 0.0 | 0.0 | 0.00 | 100.00 | 100.00 |
| 26.50 | 75.0 | 75.0 | 8.50 | 91.50 | 90-100 |
| 19.00 | 114.0 | 189.0 | 21.43 | 78.57 | 71-95 |
| 13.20 | 121.0 | 310.0 | 35.15 | 64.85 | 56-80 |
| 4.750 | 162.0 | 472.0 | 53.51 | 46.49 | 38-54 |
| 2.360 | 107.0 | 579.0 | 65.65 | 34.35 | 28-42 |
| 0.300 | 185.0 | 764.0 | 86.62 | 13.38 | 7-21 |
| 0.075 | 69.0 | 833.0 | 94.44 | 5.56 | 2-8 |
| Pan | 49.0 | 882.0 | | | |
| Total | 882.0 | | | | |

**Note:**
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory/Site.
3. Any Query regarding the report must be reported reported within 15days from the date of testing.
4. The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

Consultant's Representative

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ.
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-೫೬

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

dress for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**


## GREGATE IMPACT VALUE

2386 Part - 4) (IS:

| | | | |
|---|---|---|---|
| ject | Resurfacing of Roads at 4th Phase Yelahanka New Town and Surrounding Areas in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. | | |
| ent | BRUHAT BANGALORE MAHANAGARA PALIKE | | |
| nsultant | Sri Sai Consultants, Bangalore | | |
| ntractor | M/s Sri S. R Mohan Kumar | | |
| oposed Use | BC | Date of Sampling | 19-12-2022 |
| mple cation | At plant | Date of Testing | 19-12-2022 |

| L No. | Description | | Test No. 1 | Test No. 2 | Test No. 3 | Spec Limit (%) |
|---|---|---|---|---|---|---|
| 1 | Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm) | (Wa) | 365.00 | 371.00 | 384.00 | |
| 2 | Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm) | (Wb) | 281.00 | 284.00 | 297.00 | |
| 3 | Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm) | (Wc) | 84.00 | 87.00 | 87.00 | |
| 4 | Aggregate Impact Value (%) | (Wc/Wa)*100 | 23.01 | 23.45 | 22.66 | |
| 5 | Average Aggregate impact value | (%) | 23.04 | | | Max - 30 % |

Remarks : Satisfactory / Not Satisfactory

Note:
- The report shall not be reproduced, except in full, without the written approval of the laboratory.
- The results indicated above are based on the tests carried out on the samples ceived in the laboratory/Site.
- Any Query regarding the report must be reported reported within 15days from the date of testing.
- The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used the work.

AE ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬ.ಬ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

Authorised Signatory

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

Address for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074

**PH: 9900161466**


## BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

| | |
|---|---|
| **Name of Work :** | Resurfacing of Roads at 4th Phase Yelahanka New Town and Surrounding Areas in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| **Client :** | BRUHAT BANGALORE MAHANAGARA PALIKE |
| **Consultant :** | Sri Sai Consultants, Bangalore |
| **Contractor :** | M/s Sri S. R Mohan Kumar |
| **Date of Testing :** | 21-12-2022 |
| **Type of Mix :** | BC |
| **Sample I/D :** | BC1 |

### DETERMINATION OF BITUMEN CONTENT

| Description | Trail 1 | Trail 2 |
|---|---|---|
| 1. Weight of Mixture before extraction, g | 931 | 964 |
| 2. Weight of Mixture after extraction, g | 882 | 913 |
| 3. Weight of Bitumen | 49 | 51 |
| 4. Weight of filter paper before extraction, g | 2.00 | 2.00 |
| 5. Weight of filter paper after extraction, g | 4.10 | 4.00 |
| 6. Weight of fines, g | 1.60 | 2.00 |
| 7. Weight of Bitumen & fines | 50.60 | 53.00 |
| 8. Bitumen content in % | 5.44 | 5.50 |
| 9. Average Bitumen content in % | 5.47 | |
| 10. Minimum Bitumen content in % | 5.40 | |

### GRADATION FOR BC AFTER EXTRACTION
(As per MORT&H 500-18,Grading-2)

| | | | |
|---|---|---|---|
| Sample Location: | CQAL Layout | Date of Sampling. | 21-12-2022 |
| Type of material & Purpose: | BC | Date of testing: | 21-12-2022 |
| | | Oven Dry Wt.(gms): | 882.0 |

| IS Sieve size in mm | Weight retained | Cummulative weight retained (gm) | Cummulative % of retained | Cummulative % of passing | Specification limits |
|---|---|---|---|---|---|
| 19.00 | 0 | 0 | 0.00 | 100.00 | 100.00 |
| 13.20 | 62 | 62.0 | 7.03 | 92.97 | 90 - 100 |
| 9.50 | 120 | 182.0 | 20.63 | 79.37 | 70 - 88 |
| 4.75 | 132 | 314.0 | 35.60 | 64.40 | 53 - 71 |
| 2.360 | 118 | 432.0 | 48.98 | 51.02 | 42 - 58 |
| 1.180 | 105 | 537.0 | 60.88 | 39.12 | 34 - 48 |
| 0.600 | 75 | 612.0 | 69.39 | 30.61 | 26 - 38 |
| 0.300 | 81 | 693.0 | 78.57 | 21.43 | 18 - 28 |
| 0.150 | 62 | 755.0 | 85.60 | 14.40 | 12 - 20 |
| 0.075 | 66 | 821.0 | 93.08 | 6.92 | 4 - 10 |
| Pan | 61.0 | 882.0 | | | |
| Total | 882.0 | | | | |

Note:
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory/Site.
3. Any Query regarding the report must be reported reported within 15days from the date of testing.
4.The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಜಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-೧೧೯

Authorised Signatory

# SHREE SAI CONSULTANTS
SURVEYING, ENGINEERING PROJECT CONSULTANTS

ddress for Correspondence:

#07, 1st Floor, 1st Cross, MEI Layout,
Bagalagunte, Near BBMP Zonal Office,
Nagasandra Post Hesaragatta Main Road,
Bangaloere-560 074
**PH: 9900161466**

## DETERMINATION OF RATE OF SPREAD TACK COAT

| | |
|---|---|
| **Name of Work :** | Resurfacing of Roads at 4th Phase Yelahanka New Town and Surrounding Areas in Attur Ward No.03 of Yelahanka Sattelite Town Sub Division. |
| **Client :** | BRUHAT BANGALORE MAHANAGARA PALIKE |
| **Consultant :** | Sri Sai Consultants, Bangalore |
| **Contractor :** | M/s Sri S. R Mohan Kumar |
| **Date of Testing :** | 21-12-2022 |
| **Type of Mix :** | Tack coat |
| **Sample I/D :** | 1 |
| **Location** | CQAL Layout |

| Determination | Unit | Test No | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| **Location** | **Chainage** | **@156** | **@297** | **@468** |
| Size of Plate (mxm) | Mt | 0.30 x .30 | 0.30 x .30 | 0.30 x .30 |
| Area of Plate (a) | Sq.mtr | 0.09 | 0.09 | 0.09 |
| Initial Wt of empty Plate (b) | Kg | 0.805 | 0.759 | 0.769 |
| Final weight of plate after application of tack Coat (c) | Kg | 0.828 | 0.782 | 0.792 |
| Weight of tack Coat (d=c-b) | Kg | 0.023 | 0.023 | 0.023 |
| Rate of spread of tack coat | Kg/sq.m | 0.254 | 0.251 | 0.252 |
| Average | Kg/sq.m | 0.253 | | |
| Specified Limit | Kg/sq.m | **0.250 Kg/sq.m** | | |

**Note:**
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory/Site.
3. Any Query regarding the report must be reported reported within 15days from the date of testing.
4. The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

**Authorised Signatory**

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ.
ಜ.ಜ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106